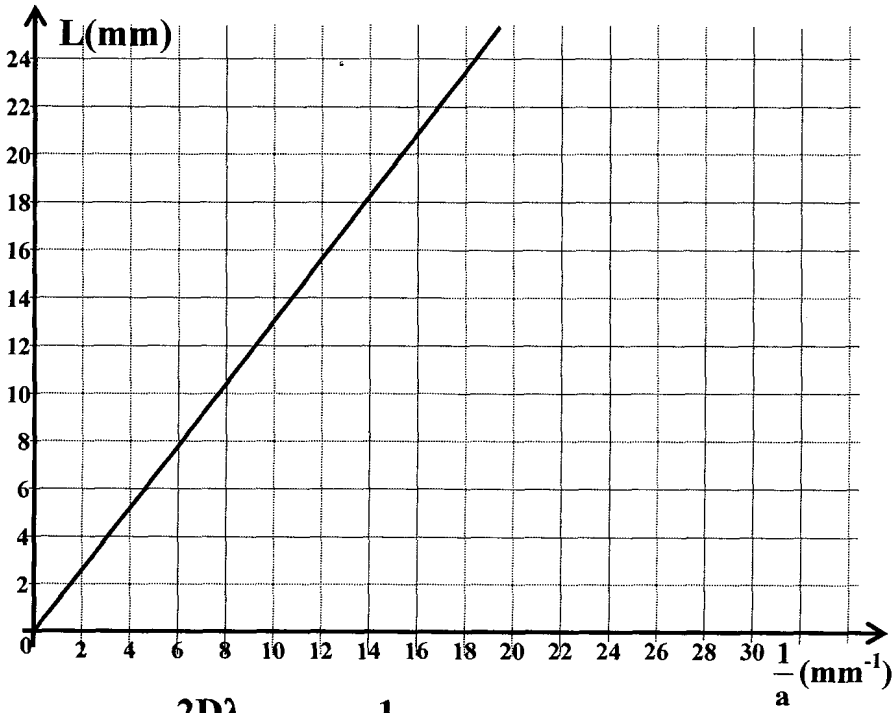


b- $L = \frac{2D\lambda}{a} = 2D\lambda.\frac{1}{a}$

$L = f\left(\frac{1}{a}\right)$ est un segment de droite qui passe par l'origine

$L = \text{pente}.\frac{1}{a}$ or $\text{pente} = \frac{(11-16).10^{-3}}{(7,69-12,5)10^{3}} = 1.10^{-6}\,m^2$

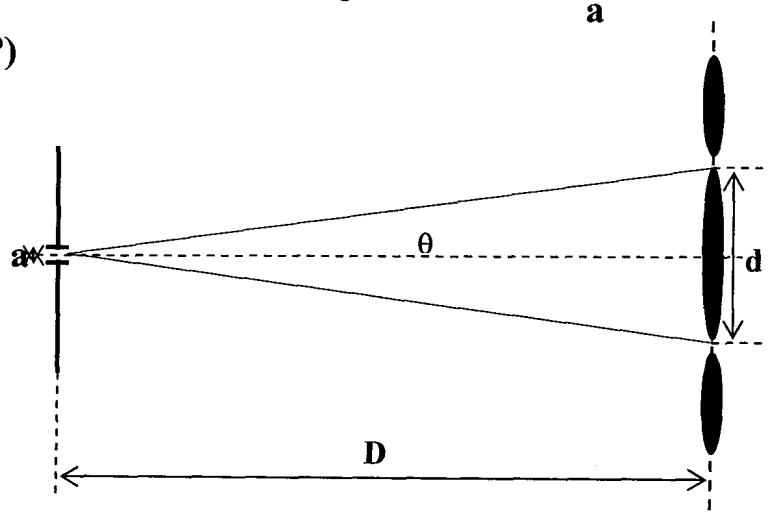
donc $\text{pente} = 2D\lambda \Rightarrow \lambda = \frac{\text{pente}}{2D} = \frac{10^{-6}}{2\times 1} = 0,5.10^{-6}\,m$

Exercice N°3 :

1°) $d = \frac{2D}{\lambda a} = \frac{[m]}{[m][m]} = [m^{-1}]$ n'est pas acceptable.

2°) Si **a** diminue **d** augmente $\Rightarrow d = \frac{2\lambda D}{a}$

3°)



$tg\theta = \frac{d}{2D}$

θ est très faible. $tg(\theta) = \theta \Rightarrow \theta = \frac{d}{2D}$ or $\theta = \frac{\lambda}{a}$

Donc $\frac{d}{2D} = \frac{\lambda}{a} \Rightarrow d = \frac{2D\lambda}{a}$

4°) $\lambda = \frac{da}{2D} = \frac{4,9.10^{-2}\times 4.10^{-5}}{2\times 1,6} = 0,6.10^{-6}\,m$